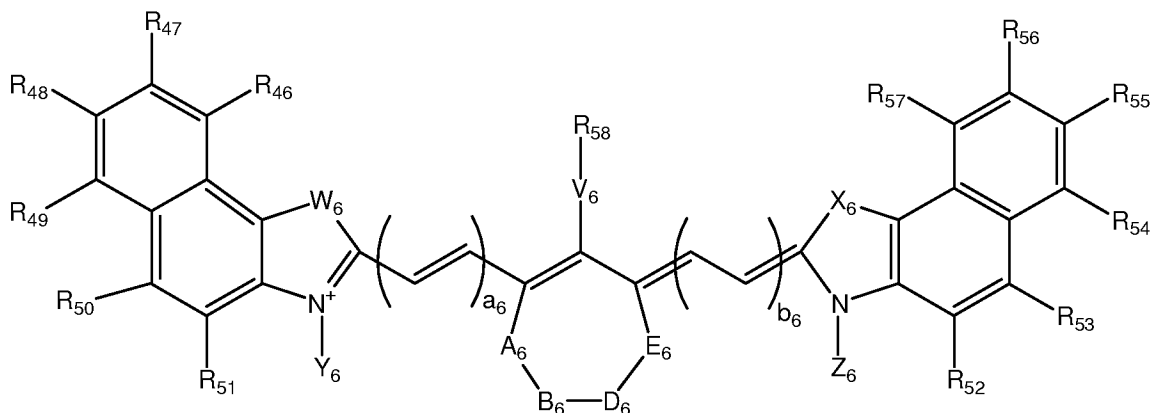


This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (CURRENTLY AMENDED) A composition comprising a compound of formula



wherein R₄₆, R₄₇, R₄₈, R₄₉, R₅₀, R₅₁, R₅₂, R₅₃, R₅₄, R₅₅, R₅₆, R₅₇ and R₅₈, Y₆, and Z₆ are independently selected from the group consisting of -H, C1-C10 alkoxy, C1-C10 polyalkoxyalkyl, C1-C20 polyhydroxyalkyl, C5-C20 polyhydroxyaryl, ~~glucose derivatives of R groups~~, saccharides, amino, C1-C10 aminoalkyl, cyano, nitro, halogen, hydrophilic peptides, arylpolysulfonates, C1-C10 alkyl, C5-C20 aryl, -SO₃T, -CO₂T, -OH, -(CH₂)_aSO₃T, -(CH₂)_aOSO₃T, -(CH₂)_aNHSO₃T, -(CH₂)_aCO₂(CH₂)_bSO₃T, -(CH₂)_aOCO(CH₂)_bSO₃T, -(CH₂)_aCONH(CH₂)_bSO₃T, -(CH₂)_aNHCO(CH₂)_bSO₃T, -(CH₂)_aNHCONH(CH₂)_bSO₃T, -(CH₂)_aNHCSNH(CH₂)_bSO₃T, -(CH₂)_aOCONH(CH₂)_bSO₃T, -(CH₂)_aPO₃HT, -(CH₂)_aPO₃T₂, -(CH₂)_aOPO₃HT, -(CH₂)_aOPO₃T₂, -(CH₂)_aNHPO₃HT, -(CH₂)_aNHPO₃T₂, -(CH₂)_aCO₂(CH₂)_bPO₃HT, -(CH₂)_aCO₂(CH₂)_bPO₃T₂, -(CH₂)_aOCO(CH₂)_bPO₃HT, -(CH₂)_aOCO(CH₂)_bPO₃T₂, -(CH₂)_aCONH(CH₂)_bPO₃HT, -(CH₂)_aCONH(CH₂)_bPO₃T₂, -(CH₂)_aNHCO(CH₂)_bPO₃HT, -(CH₂)_aNHCO(CH₂)_bPO₃T₂, -(CH₂)_aNHCONH(CH₂)_bPO₃HT, -(CH₂)_aNHCONH(CH₂)_bPO₃T₂, -(CH₂)_aNHCSNH(CH₂)_bPO₃HT, -(CH₂)_aNHCSNH(CH₂)_bPO₃T₂, -(CH₂)_aOCONH(CH₂)_bPO₃HT, and -(CH₂)_aOCONH(CH₂)_bPO₃T₂, -CH₂(CH₂-O-CH₂)_c-CH₂-OH, -(CH₂)_d-CO₂T, -CH₂-(CH₂-O-CH₂)_e-CH₂-CO₂T, -(CH₂)_f-NH₂, -CH₂-(CH₂-O-CH₂)_g-CH₂-NH₂, -(CH₂)_h-N(R_a)-(CH₂)_i-CO₂T, and -(CH₂)_j-N(R_b)-CH₂-(CH₂-O-CH₂)_k-CH₂-CO₂T; W₆ is selected from the group consisting of -S-, -O-, -CR_cR_d, -NR_c and -Se; and X₆ is selected from the group consisting of -CR_cR_d, -O-, -NR_c, -S-, and -Se; V₆ is a single bond or is selected from the group consisting of -O-, -S-, -Se-, and -NR_a; D₆ is a single or a double bond; A₆, B₆ and E₆ may be the same or different and are selected from the group consisting of -O-, -S-, -Se-, -P-, -NR_a, -CR_cR_d, CR_c, alkyl, and -C=O; A₆, B₆, D₆, and E₆ may together form a 6 or 7 membered carbocyclic ring or a 6 or 7 membered heterocyclic ring optionally containing one or more oxygen, nitrogen, or sulfur atoms; a, b, d, f, h, i, and j independently vary from 1-10; c, e, g, and k independently vary from 1-100; a₆ and b₆ vary from 0 to 5; R_a, R_b, R_c, and R_d are defined in the same manner as Y₆; T is either H or a negative charge.

2. (WITHDRAWN) The composition of claim 1 wherein R_{46} , R_{47} , R_{48} , R_{49} , R_{50} , R_{51} , R_{52} , R_{53} , R_{54} , R_{55} , R_{56} , R_{57} , and R_{58} , Y_6 , and Z_6 are independently selected from the group consisting of -H, C1-C5 alkoxy, C1-C5 polyalkoxyalkyl, C1-C10 polyhydroxyalkyl, C5-C20 polyhydroxyaryl, mono- and disaccharides, nitro, hydrophilic peptides, arylpolysulfonates, C1-C5 alkyl, C5-C20 aryl, $-SO_3T$, $-CO_2T$, $-OH$, $-(CH_2)_aSO_3T$, $-(CH_2)_aOSO_3T$, $-(CH_2)_aNHSO_3T$, $-(CH_2)_aCO_2(CH_2)_bSO_3T$, $-(CH_2)_aOCO(CH_2)_bSO_3T$, $-CH_2(CH_2-O-CH_2)_c-CH_2-OH$, $-(CH_2)_d-CO_2T$, $-CH_2-(CH_2-O-CH_2)_e-CH_2-CO_2T$, $-(CH_2)_f-NH_2$, $-CH_2-(CH_2-O-CH_2)_g-CH_2-NH_2$, $-(CH_2)_h-N(R_a)-(CH_2)_i-CO_2T$, and $-(CH_2)_j-N(R_b)-CH_2-(CH_2-O-CH_2)_k-CH_2-CO_2T$; W_6 is selected from the group consisting of $-NR_c$ and $-Se$; and X_6 is selected from the group consisting of $-CR_cR_d$, $-O-$, $-NR_c$, $-S-$, and $-Se$; V_6 is a single bond or is selected from the group consisting of $-O-$, $-S-$, $-Se-$, and $-NR_a$; D_6 is a single or a double bond; A_6 , B_6 and E_6 are independently selected from the group consisting of $-O-$, $-S-$, $-NR_a$, $-CR_cR_d$, CR_c , and alkyl; A_6 , B_6 , D_6 , and E_6 may together form a 6 or 7 membered carbocyclic ring or a 6 or 7 membered heterocyclic ring optionally containing one or two oxygen, nitrogen, or sulfur atom; a , b , d , f , h , i , and j independently vary from 1-5; c , e , g , and k independently vary from 1-50; a_5 and b_5 independently vary from 0 to 5; R_a , R_b , R_c , and R_d are defined in the same manner as Y_6 ; and T is a negative charge.

3. (ORIGINAL) The composition of claim 1 further comprising a contrast agent.

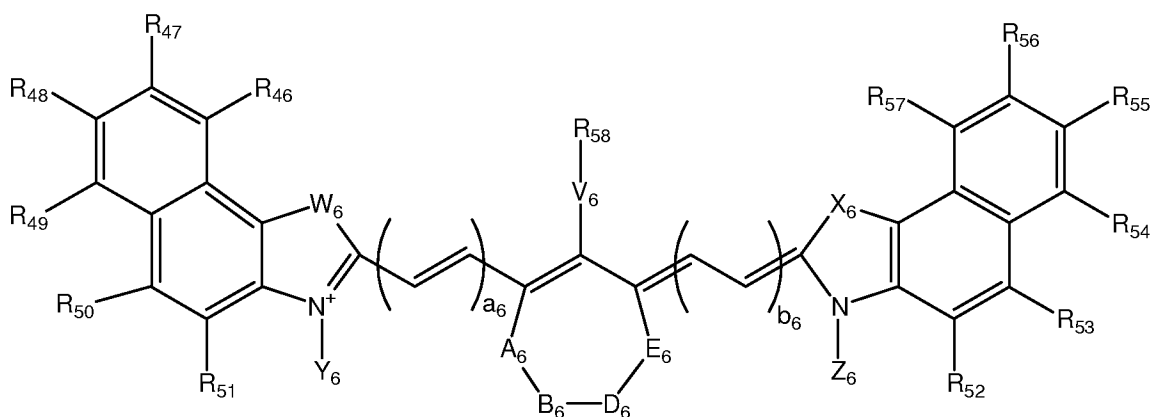
4. (ORIGINAL) The composition of claim 1 wherein the compound comprises a radioactive halogen.

5. CANCELED The composition of claim 1 wherein at least one R group of the compound is replaced by a polyamino carboxylic acid or its derivative, and W_6 additionally includes $-CR_cR_d$, $-O$, and $-S$.

6. (CURRENTLY AMENDED) The composition of claim [[5]] 1 further comprising a radioactive metal ion or a paramagnetic metal ion.

7. (ORIGINAL) The composition of claim 1 formulated as at least one of a liposome, a micelle, a microcapsule, or a microparticle.

8. (WITHDRAWN) A method for performing an imaging procedure comprising administering to a mammal an effective amount of a compound of formula



wherein R_{46} , R_{47} , R_{48} , R_{49} , R_{50} , R_{51} , R_{52} , R_{53} , R_{54} , R_{55} , R_{56} , R_{57} , and R_{58} , Y_6 , and Z_6 are independently selected from the group consisting of -H, C1-C10 alkoxy, C1-C10 polyalkoxyalkyl, C1-C20 polyhydroxyalkyl, C5-C20 polyhydroxyaryl, glucose derivatives of R groups, saccharides, amino, C1-C10 aminoalkyl, cyano, nitro, halogen, hydrophilic peptides, arylpolysulfonates, C1-C10 alkyl, C5-C20 aryl, $-\text{SO}_3\text{T}$, $-\text{CO}_2\text{T}$, $-\text{OH}$, $-(\text{CH}_2)_a\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{OSO}_3\text{T}$, $-(\text{CH}_2)_a\text{NH}\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{CO}_2(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{OCO}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{CONH}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{NHCO}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{NHCONH}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{NHCSNH}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{OCONH}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{OPO}_3\text{HT}$, $-(\text{CH}_2)_a\text{OPO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{NHPO}_3\text{HT}$, $-(\text{CH}_2)_a\text{NHPO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{CO}_2(\text{CH}_2)_b\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{CO}_2(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{OCO}(\text{CH}_2)_b\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{OCO}(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{CONH}(\text{CH}_2)_b\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{CONH}(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{NHCO}(\text{CH}_2)_b\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{NHCO}(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{NHCONH}(\text{CH}_2)_b\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{NHCONH}(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{NHCSNH}(\text{CH}_2)_b\text{PO}_3\text{HT}$, $-(\text{CH}_2)_a\text{NHCSNH}(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-(\text{CH}_2)_a\text{OCONH}(\text{CH}_2)_b\text{PO}_3\text{HT}$, and $-(\text{CH}_2)_a\text{OCONH}(\text{CH}_2)_b\text{PO}_3\text{T}_2$, $-\text{CH}_2(\text{CH}_2-\text{O}-\text{CH}_2)_c-\text{CH}_2-\text{OH}$, $-(\text{CH}_2)_d-\text{CO}_2\text{T}$, $-\text{CH}_2-(\text{CH}_2-\text{O}-\text{CH}_2)_e-\text{CH}_2-\text{CO}_2\text{T}$, $-(\text{CH}_2)_f-\text{NH}_2$, $-\text{CH}_2-(\text{CH}_2-\text{O}-\text{CH}_2)_g-\text{CH}_2-\text{NH}_2$, $-(\text{CH}_2)_h-\text{N}(\text{R}_a)-(\text{CH}_2)_i-\text{CO}_2\text{T}$, and $-(\text{CH}_2)_j-\text{N}(\text{R}_b)-\text{CH}_2-(\text{CH}_2-\text{O}-\text{CH}_2)_k-\text{CH}_2-\text{CO}_2\text{T}$; W_6 and X_6 are selected from the group consisting of $-\text{CR}_c\text{R}_d$, $-\text{O}-$, $-\text{NR}_c$, $-\text{S}-$, and $-\text{Se}$; V_6 is a single bond or is selected from the group consisting of $-\text{O}-$, $-\text{S}-$, $-\text{Se}-$, and $-\text{NR}_a$; D_6 is a single or a double bond; A_6 , B_6 and E_6 may be the same or different and are selected from the group consisting of $-\text{O}-$, $-\text{S}-$, $-\text{Se}-$, $-\text{P}-$, $-\text{NR}_a$, $-\text{CR}_c\text{R}_d$, CR_c , alkyl, and $-\text{C}=\text{O}$; A_6 , B_6 , D_6 , and E_6 may together form a 6 or 7 membered carbocyclic ring or a 6 or 7 membered heterocyclic ring optionally containing one or more oxygen, nitrogen, or sulfur atom; a , b , d , f , h , i , and j independently vary from 1-10; c , e , g , and k independently vary from 1-100; a_6 and b_6 vary from 0 to 5; R_a , R_b , R_c , and R_d are defined in the same manner as Y_6 ; and T is either H or a negative charge, and thereafter performing the imaging procedure.

9. (WITHDRAWN) The method of claim 8 comprising administering an effective amount of the composition wherein R_{46} , R_{47} , R_{48} , R_{49} , R_{50} , R_{51} , R_{52} , R_{53} , R_{54} , R_{55} , R_{56} , R_{57} , and R_{58} , Y_6 , and Z_6 are independently selected from the group consisting of -H, C1-C5 alkoxy, C1-C5 polyalkoxyalkyl, C1-C10 polyhydroxyalkyl, C5-C20 polyhydroxyaryl, mono- and disaccharides, nitro, hydrophilic peptides,

arylpolysulfonates, C1-C5 alkyl, C5-C20 aryl, $-\text{SO}_3\text{T}$, $-\text{CO}_2\text{T}$, $-\text{OH}$, $-(\text{CH}_2)_a\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{OSO}_3\text{T}$, $-(\text{CH}_2)_a\text{NHSO}_3\text{T}$, $-(\text{CH}_2)_a\text{CO}_2(\text{CH}_2)_b\text{SO}_3\text{T}$, $-(\text{CH}_2)_a\text{OCO}(\text{CH}_2)_b\text{SO}_3\text{T}$, $-\text{CH}_2(\text{CH}_2\text{-O-CH}_2)_c\text{-CH}_2\text{-OH}$, $-(\text{CH}_2)_d\text{-CO}_2\text{T}$, $-\text{CH}_2\text{-(CH}_2\text{-O-CH}_2)_e\text{-CH}_2\text{-CO}_2\text{T}$, $-(\text{CH}_2)_f\text{-NH}_2$, $-\text{CH}_2\text{-(CH}_2\text{-O-CH}_2)_g\text{-CH}_2\text{-NH}_2$, $-(\text{CH}_2)_h\text{-N(R}_a\text{)-(CH}_2)_i\text{-CO}_2\text{T}$, and $-(\text{CH}_2)_j\text{-N(R}_b\text{)-CH}_2\text{-(CH}_2\text{-O-CH}_2)_k\text{-CH}_2\text{-CO}_2\text{T}$; W_6 and X_6 are selected from the group consisting of $-\text{CR}_c\text{R}_d$, $-\text{O-}$, $-\text{NR}_c$, $-\text{S-}$, and $-\text{Se-}$; V_6 is a single bond or is selected from the group consisting of $-\text{O-}$, $-\text{S-}$, $-\text{Se-}$, and $-\text{NR}_a$; D_6 is a single or a double bond; A_6 , B_6 and E_6 are independently selected from the group consisting of $-\text{O-}$, $-\text{S-}$, $-\text{NR}_a$, $-\text{CR}_c\text{R}_d$, CR_c , and alkyl; A_6 , B_6 , D_6 , and E_6 may together form a 6 or 7 membered carbocyclic ring or a 6 or 7 membered heterocyclic ring optionally containing one or two oxygen, nitrogen, or sulfur atom; a , b , d , f , h , i , and j independently vary from 1-5; c , e , g , and k independently vary from 1-50; a_5 and b_5 independently vary from 0 to 5; R_a , R_b , R_c , and R_d are defined in the same manner as Y_6 ; and T is a negative charge.

10. (WITHDRAWN) The method of claim 9 comprising administering an effective amount of the composition wherein each of R_{46} , R_{48} , R_{50} to R_{53} , R_{55} , and R_{57} is H; each of R_{47} , R_{49} , R_{54} , and R_{56} is SO_3T ; R_{58} is glucose; each of Y_5 and Z_6 is $-(\text{CH}_2)_3\text{SO}_3\text{T}$; each of W_6 and X_6 is $-\text{C}(\text{CH}_2\text{OH})_2$; D_6 is a double bond; each of B_6 and E_6 is $-\text{CH-}$; A_6 is $-\text{CH}_2\text{-}$; each of a_6 and b_6 is 1; V_5 is a single bond; and T is a negative charge.

11. (WITHDRAWN) The method of claim 8 wherein said procedure utilizes light of wavelength in the region of 350-1300 nm.

12. (WITHDRAWN) The method of claim 8 wherein said procedure comprises monitoring a blood clearance profile by fluorescence using light of wavelength in the region of 350 to 1300 nm.

13. (WITHDRAWN) The method of claim 8 wherein said procedure comprises monitoring a blood clearance profile by absorption using light of wavelength in the region of 350 to 1300 nm.

14 (WITHDRAWN) The method of claim 8 further comprising administering a non-optical contrast agent and imaging by at least one of magnetic resonance, ultrasound, x-ray, positron emission tomography, computed tomography, and single photon emission computed tomography.

15. (WITHDRAWN) The method of claim 8 wherein said procedure is for physiological function monitoring.

16. (WITHDRAWN) The method of claim 15 wherein said procedure is for at least one of renal function monitoring, cardiac function monitoring, and kidney function monitoring.

17. (WITHDRAWN) The method of claim 15 wherein said procedure is for determining organ perfusion *in vivo*.
18. (WITHDRAWN) The method of claim 8 further comprising optically imaging the mammal.
19. (WITHDRAWN) The method of claim 18 wherein the compound contains a radioactive halogen and imaging the mammal by at least one of optical imaging and nuclear imaging.
20. (WITHDRAWN) The method of claim 18 where the compound administered has at least one R group replaced by a polyamino carboxylic acid or its derivative, and W_6 additionally includes $-CR_cR_d$, $-O$, and $-S$.
21. (WITHDRAWN) The method of claim 20 wherein the compound administered further comprises a radioactive metal ion or a paramagnetic metal ion.
22. (WITHDRAWN) The method of claim 21 further comprising imaging by at least one of optical imaging, nuclear imaging, or magnetic resonance imaging.
23. (WITHDRAWN) The method of claim 8 wherein the compound is administered in a formulation selected from at least one of liposomes, micelles, microcapsules, or microparticles.
24. (WITHDRAWN) A method of imaging a patient comprising administering a non-optical contrast agent composition further comprising the compound of claim 1 and performing at least one of an optical imaging procedure or a non-optical imaging procedure.
25. (WITHDRAWN) The method of claim 24 wherein the non-optical contrast agent composition is chosen from a magnetic resonance composition, a computed tomography composition, an x-ray composition, a nuclear imaging composition, a positron emission tomography composition, a single photon emission computed tomography composition, and an ultrasound composition.
26. (WITHDRAWN) The method of claim 24 wherein the compound stabilizes or buffers the non-optical contrast agent composition.
27. (PREVIOUSLY PRESENTED) The composition of claim 1 wherein Y_6 and Z_6 are independently selected from the group consisting of $-(CH_2)_d-CO_2T$, $-(CH_2)_a-NHSO_3T$, $-(CH_2)_a-SO_3T$, $-CH_2-(CH_2-O-CH_2)_g-CH_2-NH_2$, and $-(CH_2)_h-N(R_a)-(CH_2)_i-CO_2T$.

28. (PREVIOUSLY PRESENTED) The composition of claim 27 wherein each of R₄₆ to R₅₇ is independently -H or -SO₃T.

29. (PREVIOUSLY PRESENTED) The composition of claim 1 wherein each of R₄₆ to R₅₇ is independently -H or -SO₃T.